AMENDMENTS TO THE SPECIFICATION

In the specification under BRIEF DESCRIPTION OF THE DRAWINGS, please amend paragraph 18, on page 5 as follows:

~~FIG. 5~~ Figures 5A and 5B ~~is~~ are a top plan view and side view of an annular split morph with an inner disc and a rectangular surrounding base.

In the specification under BRIEF DESCRIPTION OF THE DRAWINGS, please amend paragraph 26, on page 5 as follows:

~~FIG. 10~~ Figures 10A, 10B, and 10C ~~is a diagram~~ are diagrams showing relative positions between the rotary actuator and the slider.

In the specification under DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS, please amend paragraph 7, on page 6 as follows:

Hereinafter, basic structures and preferred embodiments of the present invention will be described with reference to the drawings. FIG. 1 through ~~FIG. 5~~ FIG. 5B show the basic structures and the corresponding operations of the present invention.

In the specification under DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS, please amend paragraph 5, on page 9 as follows:

~~FIG. 5 is~~ FIGS. 5A and 5B show another variation of the present invention. The base plate of the actuator surrounds the annular piezoelectric element so that there is enough potting area to fix the actuator. Shown in ~~FIG. 5~~ FIGS. 5A and 5B is an actuator with a rectangular configuration. Another modification is also proposed and will be described ~~bellow~~ below with reference to the drawing. Four quarter circles at four corners designated by reference 15 are potting areas which can also be made as a step. The step is slightly higher than the plane of the annular piezoelectric element so as to control the clearance between a moveable part of the actuator and the potting surface. For the same reason, the inner disc is designed to be slightly higher than the annular area as described by reference numeral 16 to control the clearance between the slider and the actuator. Designated by reference numeral 17 is a small bulge which has the same height as the step and can restrain the deformation of the moveable part of the actuator along the direction of its thickness during service. The bulge has little effect on the rotation of the actuator and should be made of a durable material such as diamond-like carbon and son on. The step and the bulge could be made by ion etching, screen printing process and so on.

In the specification under DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS, please amend paragraph 8, on page 10 as follows:

FIG. 8 shows other variations of the present invention. As shown in FIG. 8A, the actuator stage includes two actuators shown in ~~Fig. 5~~ FIGS. 5A and 5B that are connected to each other through the inner disk step 16. Each actuator generates rotational motion in opposite direction to the connecting portion relatively. Four steps 15 on one surface of the actuator are connected to the slider and four steps 15 on the opposite surface thereof are connected to the flexure tongue. Accordingly, the stroke of the magnetic pole tip formed on the slider is enlarged to almost twice compared to the single actuator.

In the specification under DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS, please amend paragraph 18, on page 11 as follows:

~~FIG. 10~~ FIGS. 10A, 10B, and 10C ~~shows~~ show relative positions between the rotary actuator and the slider, the reference numerals that are the same as those in FIG. 9 designate the same components.

In the specification under DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS, please amend paragraph 30, on pages 11 and 12 as follows:

Shown in FIG. 12 is a detailed configuration of another embodiment, where the actuator is the multilayer one described in ~~FIG. 5~~ FIGS. 5A and 5B. In FIG. 12, numerals that are the

same as those in FIG. 11 designate the same components. The valuable advantage of this embodiment is the symmetrical feature that is beneficial to dynamic performances of the slider, such as flying height stability, resonance frequency and so on.

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 5 and Figure 10.

These sheets include replacement Figures 1-10 and replaces the original Figures 1-10.

In Figures 5 and 10, labels 5A and 5B, 10A, 10B, and 10C have been added to the existing Figures 5 and 10.

Attachment: Replacement Sheets
Annotated Sheets Showing Changes